

**ABSTRACT**

**"Biological Assays"**

5      **(Fig. 1)**

Biological assays using various constructions of biochips are disclosed to mirror in vivo situations. The biochip 50 comprises a microchannel 51 having a liquid outlet port 1, bubble release port 2 and a liquid outlet port 3 with an associated bubble  
10 release port 4. A multiplicity of tests can be performed often by coating the bore of the microchannel 50 which various adhesion mediating proteins or the use of chemoattractants. The assay assembly 60 comprises a syringe pump feeding the biochip 50. An inverted microscope 65, digital camera 66 and recorder 67 are provided. A sample liquid containing cells in suspension is injected slowly through  
15 the biochip and the effect of the assay recorded over a long period.

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